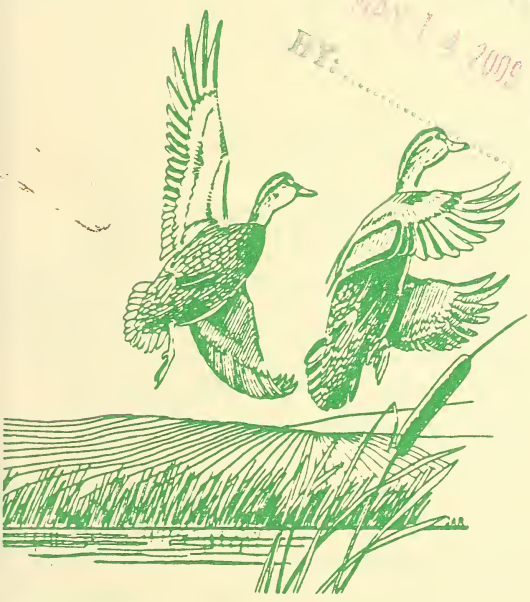
Wetlands

A Heritage to Preserve



When is "WET" Land a Wetland?

Since the founding of this nation over two hundred years ago, approximately 56 percent of those original wetlands have been destroyed. This happened through drainage and filling activities that allowed the land to be used for construction of highways, residential, commercial and industrial development, and agriculture. Only after many wetlands were converted to other uses, are we now discovering our dependency on their special functions to preserve our environment. Yet, two questions remain to be answered for most of us: 1) What is a wetland? and; 2) What are the benefits of maintaining them?

What is a Wetland?

Wetlands are called various names - swamps, marshes, bogs, fens, sloughs, potholes, wet meadows, bottom lands and just plain "wet spots." Most of us think a wetland is wet all year but many actually are dry on the surface most of the year. How do you know if the land is a wetland?

The USDA Soil Conservation Service defines a wetland as - *"Areas that have a predominance of hydric soils and that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions."*

Let's translate the scientific language! Simply, to be a wetland, all of the following three things must occur:

1. The soil must have water on or near the surface for part to all of the year (water-soaked land).
2. The soil is identified as a wet soil. The scientists call them hydric soils (wet soil).
3. The living plants are those that occur in wet soil. They are called hydrophytic plants (water-loving plants).

Lets look at each of these points in more detail.

Water soaked land - Simply stated, the land has water laying on the surface for more than a week during the plant growing season. However, if the soil is poorly drained, it need only be saturated to within 12 inches of the surface for two weeks or more during the growing season. To determine if a soil is poorly drained, check your county soil survey report. A copy is in the local Soil Conservation Service, Cooperative Extension Service or conservation district office.

Wet (hydric) soil - A hydric soil has characteristics that indicate either slow permeability (less than 6 inches per hour) or has a subsoil that shows the presence of water saturated conditions for a prolonged time. To describe in simple terms, iron in the soil oxidizes. This is similar to what happens when iron is

exposed to rain - rust and/or gray colors appear. This rust and gray coloring in the subsoil are called "mottling." The more "mottling" that is present, the longer the subsoil is saturated with water.

Water-loving (hydrophytic) plants - Some plants prefer to grow in wet areas. These include cattails and sedges. However, not all plants called "hydrophytic" grow only in wetlands. Many will also grow in other soils. Plants alone cannot be used to identify a wetland. The presence of water-loving plants supports a wetland identification if the other two conditions, hydric soil and water-saturated soil, are present.

Benefits of Wetlands

During the past 20 years, there has been a growing awareness of the many values of wetlands. Let's consider the good things wetlands do for our environment.

Improves water quality
Wetlands have a cleansing effect on flowing water. They remove sediment,

nutrients, pesticides and minerals. Some towns use constructed wetlands as a low-cost way to treat sewage waste. Wetlands are also used to purify acid mine discharges. Wetland plants and organisms can remove some toxic heavy metals and break down some dangerous compounds into harmless elements.

Reduces soil erosion and sedimentation
Because wetlands slow the overland flow of water, they reduce soil erosion and sedimentation. They filter and collect sediment from runoff water, keeping mud from clogging streams, reservoirs and lakes. Coastal wetlands absorb the impact of storms and high tides, thus reducing soil and property loss.

Provides habitat for wildlife
Wetlands provide breeding, nesting and feeding habitat for millions of waterfowl, shorebirds, songbirds, frogs and other wildlife. All of America's ducks and geese depend on wetlands. Wetlands support about 5,000 plant species, 190 species of amphibians and one-third of all bird species.

Prevents floods
Because wetlands are generally flat, they slow down and store runoff water for short periods of time. This temporary storage reduces the peak water flow after a storm and helps reduce downstream flooding. Conversely, ditching or filling wetlands can increase downstream flooding because the storage capability is lost.

Supports commercial fisheries
Coastal wetlands are an integral part of the life cycle of many fish and shellfish. Shrimp, salmon, oysters, crabs and flounder depend on estuaries and associated wetlands for their survival. Coastal wetlands are the nursery and spawning areas for over 60 percent of the U.S. commercial fish catches.

Accommodates outdoor experiences
More and more people seek opportunities to enjoy nature and the outdoors. They enjoy looking at unusual flowers, birds and other animals. Photographic opportunities abound. Nowhere in nature is there more variety and beauty than in a wetland ecosystem.

Grows trees for lumber
Forested wetlands are an important source of lumber. In spite of the difficulty of harvesting, valuable lumber is obtained from cedar, bald cypress and tupelo trees.

Supplies habitat for rare, threatened and endangered species
Almost 50 percent of the federal and state listed threatened and endangered species either live in or depend on wetlands for their survival. Yet wetlands occupy only 5 percent of the nation's land area.

Stores water for our use
Wetlands are reservoirs for rainwater and runoff. Most temporarily store water. This can help recharge ground water supplies. It also keeps streams flowing during drier periods.

Produces food and energy
Wild cranberries, blueberries and rice grow in wetlands. Farmers harvest hay from many wetlands during the drier part of the year. Generally the food and energy production potential of wetlands have not been developed. An acre of cattails produces the same amount of alcohol as an acre of com. Wetlands have been called the richest single ecosystem for available energy.

What Should I Do if I Think I Have a Wetland?

First, don't make any changes in the land until it has been properly determined that you have a wetland. Federal laws protect wetlands. Four federal agencies make wetland determinations. They are:

Environmental Protection Agency
Army Corp of Engineers
USDI Fish & Wildlife Service
USDA Soil Conservation Service

These agencies can determine if a wetland exists and if the changes you want to make are allowed by law. They will also advise you of any permits that are needed. In addition, many states and

some counties have their own laws regulating wetlands.

If you own a wetland, please accept the responsibilities that go with it. You own an important and valuable part of the environment. You are entrusted with its care - to preserve a key part of our world for your family, your community and future generations.

A Wetland is a Heritage to Preserve

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